



Australian Government

PCT/AU04/001791

Patent Office
Canberra

I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2004903930 for a patent by DEREK MICHAEL AURET as filed on 19 July 2004.



WITNESS my hand this
Eleventh day of January 2005

A handwritten signature in dark ink, appearing to be 'LM' or similar initials.

LEANNE MYNOTT
MANAGER EXAMINATION SUPPORT
AND SALES

PROVISIONAL PATENT APPLICATION

**HIDDEN CANTILEVER SUPPORT FOR CRIMP
TYPE FIXING FOR LADDERS AND FENCING**

**INVENTOR:
DEREK MICHAEL AURET**

BRIEF DESCRIPTION OF THE INVENTION.

SIMPLE HOLLOW EXTRUSIONS are often used in the manufacture of items such as fencing, ladders and balustrading. At various times, the extrusion comes together with another item for attachment. Typically these attachments are at 90%.

This invention is concerned with the case where multiple pieces intrude into a one piece hollow extrusion in a uniform manner along the length of the extrusion. For an example of that consider how vertical pieces may intrude into or indeed through horizontal rails in a fence. Further to the above, it relates only to such attachments where the method of securing the intruding piece is applied from inside the single piece hollow extrusion that receives the multiple intrusions. Going back to the fence example, the method of securing the verticals to the rail is applied from inside the rail, typically where a crimping device is drawn through the rail, end to end. This invention relates specifically to cases where that method of fixing is to squeeze and deform or crimp the intruding pieces inside the host extrusion, by the aforementioned means, or to pin it by the same means.

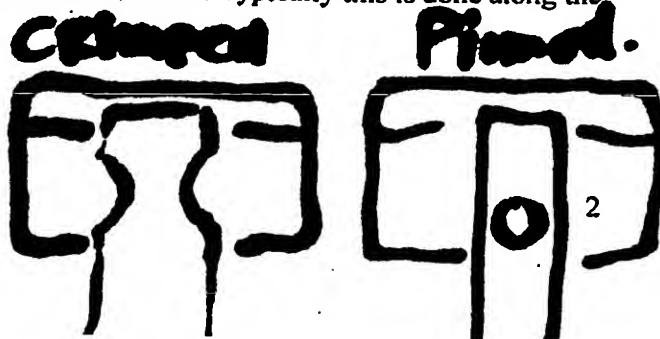
The hollow extrusions, by definition, have no uniform internal substance to support the intrusions in any meaningful manner. By way of a contrasting example, timber in a mortise and tennon joint does offer internal support, by means of its uniform substance. So an intrusion with existing technology, applied in the manner of the specifics of this case, lacks in internal support.

The invention is to offer a hidden second intrusion, without exiting the "host" extrusion. Going back to the fence example, the invention is to offer bi-lateral internal support for the vertical section as it intrudes into the rail, without it poking out of the top of the rail.

In this invention, the simple extrusion has an internal wall, which is perforated to accept the second intrusion, from multiple intruding pieces, in the same manner as the external wall was perforated to accept the first intrusion. As the multiple pieces enter the rail as per the example, they pass through that outer wall and then through the inner hidden wall. In this manner the two walls through which they pass offer support for the cantilever, and as the two holes each intruding piece passes through is specifically made to receive each intruding piece in a reasonably tight fit, the support is in any direction at least on the plane which lies at 90% to the intrusion.

One method for supplying the above is to punch or drill the internal wall at the same time as one punches or drills the external wall of the extrusion. Typically this is done along the length of the extrusion.

Cross
Section
View



Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/AU04/001791

International filing date: 20 December 2004 (20.12.2004)

Document type: Certified copy of priority document

Document details: Country/Office: AU
Number: 2004903930
Filing date: 19 July 2004 (19.07.2004)

Date of receipt at the International Bureau: 17 January 2005 (17.01.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse